cash income. Pigs are seldom eaten by the family that raises them. On New Year's, a family will slaughter a pig or three or four families might co-operate in sharing one. Pork may also be served at O-Bon and at Jūgoya, the autumn equinoctial holiday season.

A family often gets its start in pig raising by obtaining a loan from a mutual loan group. (These groups will be discussed later). A young pig may cost about Y2000. Male pigs intended for market (nikubuta in Japanese, shishiwa in Okinawan) are castrated two months after birth. Keeping breeding pigs (tanebuta) is a special business. Men engaged in this business bring the boar to the pig raiser's home. Each village has such a businessman or at least has convenient access to one in a neighboring village. The fee usually charged is Y200. If the first attempt at breeding is unsuccessful, a second opportunity is given free. On the third try, the dealer claims his fee again. In Matsuda, there is a belief among the old that as the tide is coming in, if a sow is in heat, the male will be able to perform, but that in the ebb tide he cannot.

Great care is taken in housing pigs adequately, if the family is able to do so. The pig sties made of stone or coral may be better than the houses of their owners. This is by no means so shortsighted or ridiculous as it might seem. Pigs are the means, one of the very few means, by which an agricultural family may acquire substantial sums of cash. To protect this living bank account, considerable sums are invested in fine stone, or cement floors and an adequate roof. The pen must be strong to withstand typhoons. With a good pig pen, a sow, and a good litter, a family can look forward to improving its financial condition and its own housing. There is great variety in the quality of pig pens. The pen may be in combination with the outside toilet, but with the two places completely separate; it may be part of a larger shed which also houses the goats, the cattle, or the horse. If a family can afford it, the pig is housed in a stone pen with stone floors, or with other sturdy materials.

The day to day care of pigs is mostly the work of women. While the husband is at work in the fields, the wife, as an incidental part of her duties, goes to the nearest plot to cut sweet potato tops, or mashes sweet potatoes in the stone mortar in the compound, often with her infant child on her back. There are three favorite varieties of food for pigs: (1) the leaves of the sweet potato plant not suitable for human consumption or not needed for transplanting, (2) the potato itself. The poorer grades of potato are put in a stone mortar and are smashed with a long pole, or pestle. (3) A cloudy liquid consisting of the sweet potato, waste bean curd (tōfu no kasshu) and water. This is always given warm. The pig may also get poor rice, or rice spoiled for human consumption by submersion as a result of a typhoon, or miscellaneous left overs from the table.

There are no ceremonies in any of the villages associated with slaughtering the pig. Villagers seldom kill their own except on

231 special holiday occasions. Pig killing or the killing of any animals [825] is distasteful. The pig generally is driven out of the pen to a [993] waiting truck or horse cart and hauled squealing off to market.

232 Considerable interest is being shown (early 1952) in the scientific [197] breeding of pigs from stock imported from the United States. Chester White is a well known word among the farmers of Matsuda. In this area, regional meetings of pig breeders and raisers from the northern part of Okinawa and the Motobu peninsula are held to discuss the care, breeding, and marketing of pigs. These farmers have come a long way from the earlier days, even 25 years ago, when the toilet and the pig pen were the same. A farmer going from one of his fields to another often stops home to look at the pigs and perhaps to discuss his problems with [474] a friend. In Matsuda, a pig growers' association has now been started.

231 Domestic animals, especially the pig, can be expected to increase and to reach at least their pre-war level, if the villages studied are typical. This development will be all to the good. The pig consumes food not fit or not used for human consumption. It does not compete with humans for food. It is unlikely that land now devoted to the production of human food would be diverted to animal food. In my observation, there is not a strong competition between animals and man for the products of the land. Domestic animals really round out the agriculture and consume food that otherwise would not be used.

[311] The lack of grazing land, except on the hill sides and summits, means that domestic animals must be fed with food grown and prepared and fed to them by the farmer. Grazing also would be out of the question since the land on the hills is privately owned and split up in small parcels. The young plants are valued too highly to permit indiscriminate grazing.

[435] Goats are cheaply raised. The only expense is the labor of getting leaves, grass, and tender shoots from the family's genya [262] land on the hills. In the market, goat is the cheapest of all meats. There are also sharp differences in taste among villagers for goat's meat. The milk is not used as a food. Goats are tied up or kept in stalls for their entire life. They are never allowed to roam through the village or to grase on the hill sides. They are not given water and depend entirely on the water in the grasses and shoots which they are fed.

Horses, cattle, and oxen are fed grasses, mashed sweet potatoes, [992] and waste bean curd. Though occasionally used in rice fields, the chief use of horses is in drayage. In Matsuda, the horse and the two wheeled cart make frequent trips to the mountains to transport the longpoles, firewood, and charcoal.

235 Chickens are fed anything that might be on hand. Often they [262] are given the chaff from the rice or the rice that is blown off in winnowing. Occasionally chickens are eaten, but they are kept primarily

757 frequently and may be repeated as many as four times during the
[854] first year of a child's life. An older child occasionally undergoes this
[164] treatment for a case of violent impetigo. Even a horse may be bled in
[232] this way for loss of appetite or other symptoms of disease.
[578] A woman whose face had been struck in an unusual display of temper underwent a blood letting soon after a swelling appeared. Her neighbor from across the street, a farmer like everyone else, sterilized her cheek with iodine and then cut it with a razor until the blood flowed freely. After a night's rest, the woman appeared outside her house without any signs of swelling and seemingly recovered.

753 As was pointed out previously, many diseases are believed to be
776 caused by supernatural forces: the ancestor spirits, spirits of those who
769 have just died, and natural deities and evil spirits who wander around
775 at night. The ancestors expect proper respect and attention and in gen-
[764] eral are benevolent unless neglected. Spirits of those who have recently died are most dangerous if the deceased is from another village. For deceased villagers one is careful to purify oneself after the funeral. The doors of each house are shut at night to protect against the evil spirits of the night air. Disease is less frequently caused by natural deities who have been neglected or mistreated.

755 In case of sickness or other unfortunate events in the family, some-
756 body may go to consult the *yuta,* a shaman who communicates with
[787] the supernatural. She discovers the cause of misfortune with the help of rice oracles and through powers of divination received through visions and hallucinations. There is no *yuta* living in Taira now, so that people have to travel to the other side of the island, an hour or more on foot, if they want to learn about the source of some evil. Taira
[769] people make many such trips to consult this shamanistic specialist. The most common cause of misfortune discovered by the *yuta* is neglect of ceremonies to the ancestral gods or, less frequently, the neglect of cere-
[793] monies to the natural deities. Although the *yuta* stands in no direct connection with the high priestess, she may suggest that her client ask the priestess for special prayers to rectify the negligence. In such cases, then, the competence of individuals in the family may not be adequate to deal with the ancestral world, and the priestess enters into family religion.

597 Some Taira parents still find an adoptive parent for a sickly child in
755 the belief that his own ancestors have caused bad health, and that this
769 can only be remedied by making a formal arrangement which transfers
[796] ancestral responsibility for the child to another family. The child remains with his own parents and only visits his foster parents during the New Year and the midsummer Buddhist *Bon* Festival, which honors ancestors, and perhaps at one or two other occasions during the year.

313 Home Industries and Famous Products The forested northern mountains give rise to small scale lumbering, charcoal making, 314 and firewood gathering. Kunigami-son and Kushi-son emphasize the gathering of 433 bamboo and firewood. On the other hand the making of charcoal is more important in Nago, Haneji, and Ōgimi. The urbanization of the south combined with [367] the postwar extension of roads into formerly inaccessible parts of the north [491] have accelerated exploitation of the northern forest resource. Particularly heavy is the demand for long roof poles, or kichigwā, after every major typhoon. [237] Kunigami-son and Higashi supply the bulk of these. Where wood is plentiful behind a coastal road, one often finds lime kilns, which process the coral of the reefs.

258 The sea is also a major source of material for home industries. Sea 433 salt is made at Yagaji, Urasoe and Oroku on the west coast, at Henza and Awase [237] on the east. Kunigami-son prides itself upon its production of seaweed. Buttons from seashells are made in Mawashi. Fish cakes ('kamaboko') are made in quantity in Itoman and Naha, with lesser amounts being produced in Ishikawa and Nago. Dried bonito ('katsuoboshi') is a specialty of Tonaki isle to the west. Motobu-chō holds second place, followed by the western isles of Tokashiki and 505 Zamami. For over a hundred years the small cargo sailboats ('Yambaru-sen') 178 of the east coast have carried forest products from the north. The extension of roads into the northern forests has greatly reduced the amount now carried by sea.

433 Horse breeding is a specialty in Nakazato (the eastern half of Kume- [232] shima), which has 22% of the gunto's production of horses. However, the pro- [238] duction of horse and cattle hides is concentrated in the urban areas, which [231] account for 84% of the hides produced. Nakazato is also famous for production of silk cocoons, being responsible for about two-fifths (38.7%) of the gunto's total. The leading mainland producer is Motobu-chō, with 9%.

Although Okinawa is not self-sufficient in tea, the three areas of [245] Gushikawa, Ishikawa and Kunigami produce over half of the local tea. In Oku [474] village of Kunigami, the tea factory is a cooperative venture. Gushikawa [374] and Chatan pride themselves upon possessing 'sake' and 'awamori' distilleries. [256] Mawashi is the center of production of farm tools, and accounts for some weaving of banana cloth. Weaving of mats from the "seven isles reed" ('shichitō-i') is a local specialty of Kanegusuku.

[314] Travertine quarries are found in Motobu-chō and Katsuren. A sandy limestone is quarried at Minatogawa in Gushichan.